

REMARKS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 1, 3-8, 10-14 and 16-28 are presently active in this case. The present Amendment amends Claims 1, 3-8, 10-14 and 16-19, cancels Claims 2, 9 and 15 and adds new Claims 21-28 without introducing any new matter.

The outstanding Office Action objected to Claims 1 and 18 because of informalities. Claims 1-20 were rejected under 35 U.S.C. §112, second paragraph, as indefinite. Claims 1, 3, 4, 6, 8, 11, and 20 were rejected under 35 U.S.C. §102(e) as anticipated by Crichton et al. (U.S. Patent No. 6,104,716, herein "Crichton"). Claims 2, 9, 13, 14, and 16-19 were rejected under 35 U.S.C. §103(a) as unpatentable over Crichton in view of Compliment et al. (U.S. Patent No. 5,909,549, herein "Compliment") and Mayes et al. (U.S. Patent No. 5,793,763, herein "Mayes"). Claims 7 and 12 were rejected under 35 U.S.C. §103(a) as unpatentable over Crichton in view of Halsall Data Communications, Computer Networks and Open Systems Chapter 10 "Broadband Multi-service Networks" (herein "Halsall"). Claims 5, 10 and 15 were indicated as allowable if rewritten to overcome the rejection under 35 U.S.C. §112, second paragraph and if rewritten in independent form. Applicants acknowledge with appreciation the indication of allowable subject matter.

In response to the indication of the allowable subject matter, new Claim 21 is presented reciting all the features of original independent Claim 1 and original Claim 5 and to be in more proper U.S. claim format. New Claim 22 is presented reciting all the features of original independent Claim 8 and original Claim 10 and to be in more proper U.S. claim format. New Claim 23 is presented reciting all the features of original independent Claim 13 and original Claim 15. Further, minor formalities are corrected and the terms "occasionally," "limited," and "temporarily" are deleted, as well as the terms in parentheses, to overcome the

rejection under 35 U.S.C. §112. Claim 15 has been deleted since new Claim 23 would cover the same scope as independent Claim 13 together with dependent Claim 15.

In response to the objection to Claims 1 and 18, the claims are amended to correct the noted informalities.

In response to the rejection under 35 U.S.C. §112, second paragraph, Claims 1, 3-8, 10-14 and 16-19 are amended to be in more proper U.S. claim drafting form and to correct the noted informalities. In particular, the term "occasionally" is deleted from Claim 1. The term "limited period of time" of Claims 3, 8, 10 and 14 is replaced by "period of time" and is further defined in new dependent Claims 24-26.¹ The term "temporarily" is deleted from Claims 13 and 16. Furthermore, all limitations defined in brackets are deleted. In view of amended Claims 1, 3-8, 10-14 and 16-19, it is believed that all pending claims are definite and no further rejection on this basis is anticipated. If, however, the Examiner disagrees, the Examiner is invited to telephone the undersigned who will be happy to work with the Examiner in a joint effort to derive mutually acceptable language.

To vary the scope of protection recited in the claims, new Claims 24-28 are added. New Claims 24-25 depend upon independent Claims 1 and 8 respectively and recite "said period of time is at least a duration of a transmission of the IP data packets through the firewall by said first or second IC breaker."² New Claim 26 depends upon Claim 14 and recites a similar feature on the period of time as new Claims 24-25. New Claims 27 and 28 depend upon independent Claims 1 and 8 respectively and recite "wherein said particular type IP data packet is an internet control message protocol packet ICMP."³ Since the new claims find support in the disclosure as originally filed, the changes to the claims are not believed to raise a question of new matter.⁴

¹ Finds non-limiting support in Applicants' Specification, for example from page 10, line 24 to page 11, line 8.

² Finds non-limiting support in Applicants' Specification, for example from page 10, line 24 to page 11, line 8.

³ Finds non-limiting support in Applicants' original Claims 2 and 9.

⁴ See MPEP 2163.06 stating that "information contained in any one of the specification, claims or drawings of

In response to the rejection of Claims 1, 3-4, 6, 8, 11 and 20 under 35 U.S.C. §102(b), Applicants traverse the rejection. In the spirit of moving the prosecution of the Application forward, independent Claims 1 and 8 are amended to recite a feature of dependent Claims 2 and 9, respectively, to recite "said particular IP data packet is a ping-packet." Accordingly, Claims 2 and 9 are cancelled. Since Claim 9 is cancelled, Claim 10 is amended to depend upon Claim 8. Accordingly, the outstanding rejection of Claims 1, 3-4, 6, 8, 11 and 20 under 35 U.S.C. §102(b) is now moot and Applicants respectfully request reconsideration of this rejection.

In response to the rejection of Claims 2, 9, 13-14 and 16-19 under 35 U.S.C. §103(a), Applicants respectfully traverse the rejection and request reconsideration of the rejection, as discussed next.

Briefly recapitulating, Claim 1 relates to an IP network, a protected network protected by a firewall, a first IC-breaker and a second IC-breaker. The first and second IC breakers are configured to open the firewall to enable IP data packets to be transferred through the firewall to the protected network, wherein the first IC-breaker is located on a IP network side of the firewall and the second IC-breaker is located on a protected network side of the firewall. Further, the firewall is transparent to a particular type IP data packet configured to communicate between the first and second IC-breakers through the firewall by using the particular type IP data packet. The particular IP data packet is a ping-packet.

As explained in Applicants' specification at page 1, lines 12-25 with corresponding Figure 1, Applicants' invention improves upon conventional transmission systems because it uses the ping service, which sends a message in form of packet to a computer, connected to a network, that has to be contacted.

Applicants respectfully traverse the obviousness rejection based on Crichton and Compliment as well as the Mayes patents because there is insufficient evidence for a motivation to modify the Crichton's method and apparatus of lightweight secure tunneling protocol permitting communication across one or more firewalls by using a middle server⁵ by incorporating Compliment's method of registering, monitoring and initiating registration of an simple network protocol device (SNMP) with a management station, for the following reasons.⁶

The outstanding Office Action states that the proposed modification would have been obvious "for the particular type IP packet to be a ping packet since the transparency of certain internet messaging packets, such as a ping packet, to a firewall enables unrestricted communication between two devices separated by the firewall by means of the certain ICMP packet."⁷ The record, however, fails to provide any required *evidence* of a motivation for a person of ordinary skill in the art to perform such modification. While Compliment may provide a reason for using the ping packets in a SNMP protocol to manage the network and to discover devices present in the network,⁸ Compliment fails to suggest why a person of ordinary skill in the art would be motivated to incorporate such a feature in communication tunneling system, where three proxies are used to establish an end-to-end connection that navigates through the firewalls,⁹ such as the one disclosed in the Crichton. In particular, Compliment uses a network management station employing the Simple Network Management Protocol (SNMP) to register devices present in a network to auto-discover

⁵ See Crichton in the Abstract.

⁶ See MPEP 2143.01 stating "[o]bviousness can only be established by combining or modifying the teaching of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art," (citations omitted). See also MPEP 2144.08 III stating that "[e]xplicit findings on motivation or suggestion to select the claimed invention should also be articulated in order to support a 35 U.S.C. 103 ground of rejection. . . . Conclusory statements of similarity or motivation, without any articulated rational or evidentiary support, do not constitute sufficient factual findings."

⁷ See outstanding Office Action from page 7, last line to page 8, line 4.

⁸ See Compliment, for example at column 2, lines 50-65.

⁹ See Crichton, for example in the Abstract.

network devices.¹⁰ Compliment, however, does not suggest that the IP packet should be a ping packet and that it would work in a method for using a secure tunneling protocol permitting the communication across one or more firewalls, much less to enable “unrestricted communication between two devices separated by the firewall”¹¹ in such a method and apparatus for secure communication tunneling. Compliment does not state that Crichton’s method and apparatus for lightweight secure communication tunneling over the internet need Compliment’s ping packets in a SNMP protocol to manage the network.

In addition, Crichton is not concerned with a management station managing a network and a SNMP device by using SNMP frames or ping frames. Instead, Crichton is concerned with providing secure tunnels through firewalls without changes in the existing firewall software.¹² Crichton states that its structure already achieves the goal of creating a link or tunnel through multiple firewalls, by a middle proxy and inside end proxies (server and client proxies).¹³ Crichton neither suggests that further improvement is desired, nor that another feature should be added to further improve the lightweight, secure communication tunneling over the internet. In particular, Crichton does not suggest using ping packets, such as those disclosed in the Compliment.

Further, the record also fails to provide the required *evidence* of a motivation for a person of ordinary skill in the art to perform the combination of Crichton with Mayes. While Mayes may provide a reason for using certain types of ICMP packets to enter a local network in a security system, Mayes fails to suggest why a person of ordinary skill in the art would be motivated to incorporate such a feature in Crichton’s communication tunneling system, where three proxies are used to establish an end-to-end connection that navigates through the firewalls. In particular, Mayes uses ICMP packets as inbound packets, and a decision step

¹⁰ See Compliment from column 2, line 50 to column 3, line 3 and in the Abstract.

¹¹ See outstanding Office Action at page 8, lines 3-4.

¹² See Crichton, for example, at column 2, lines 19-22.

¹³ See Crichton, for example, at column 2, lines 45-55.

determines whether they meet the security requirements for dynamic translation slots.¹⁴

Mayes, however, does not suggest that the ICMP packets would work in a system of three or more servers to establish end-to-end connection that navigates through firewalls. Mayes does not state that Crichton's secure communication tunneling over the internet needs ICMP packets.

In addition, Crichton is not concerned with meeting the security requirements of inbound packets destined for static or dynamic translation slots.¹⁵ Instead, Crichton is concerned with end-to-end connections of clients to servers over multiple firewalls. Crichton states that its structure already achieves the goal of secure tunneling communication over the internet.¹⁶ Crichton neither suggests that further improvement is desired, nor that another feature should be added to further improve the secure tunneling through multiple firewalls.

Therefore, the Crichton, Compliment and Mayes patents do not provide the motivation to perform the proposed modification of the Crichton's secure tunneling. In other words, an attempt to bring in the isolated teaching of Compliment's ping packets or Mayes' ICMP packets into Crichton would amount to improperly picking and choosing features from different references without regard to the teachings of the references as a whole.¹⁷ While the required evidence of motivation to combine need not come from the applied references themselves, the evidence must come from *somewhere* within the record.¹⁸ In this case, the record fails to support the proposed modification of Crichton.

¹⁴ See Mayes, for example, at column 13, lines 23-33.

¹⁵ See Mayes, for example at column 13, lines 22-47 and corresponding Figure 5.

¹⁶ See Crichton, for example, at column 2, lines 32-55.

¹⁷ See In re Ehrreich 590 F.2d 902, 200 USPQ 504 (CCPA, 1979) (stating that patentability must be addressed "in terms of what would have been obvious to one of ordinary skill in the art at the time the invention was made in view of the sum of all the relevant teachings in the art, not in view of first one and then another of the isolated teachings in the art," and that one "must consider the entirety of the disclosure made by the references, and avoid combining them indiscriminately.")

¹⁸ In re Lee, 277 F.3d 1338, 1343-4, 61 USPQ2d 1430 (Fed. Cir. 2002) ("The factual inquiry whether to combine references ... must be based on objective evidence of record. ... [The] factual question of motivation ... cannot be resolved on subjective belief and unknown authority. ... Thus, the Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion").

In rejecting a claim under 35 U.S.C. §103(a), the USPTO must support its rejection by "substantial evidence" within the record,¹⁹ and by "clear and particular" evidence²⁰ of a suggestion, teaching, or motivation to combine the teachings of different references. As discussed above, there is no substantial evidence, nor clear and particular evidence, within the record of motivation for modifying the Crichton device by incorporating Compliment's ping packets for or Mayes' ICMP packets. Without such motivation and absent improper hindsight reconstruction,²¹ a person of ordinary skill in the art would not be motivated to perform the proposed modification, and Claims 1, 3-4, 6, 8, 11 and 20 are believed to be non-obvious and patentable over the applied prior art.

In response to the rejection of Claims 7 and 12 under 35 U.S.C. §103(a) over Crichton in view of Halsall, Claims 7 and 12 are dependent upon independent Claims 1 and 8 respectively. Even if the combination of the references Crichton with Halsall is assumed to be proper, since Claims 1 and 8 are believed to be patentably distinct over the applied references, Claims 7 and 12 are also believed to be patentable. Accordingly, Applicants respectfully traverse the rejection of Claims 7 and 12 under 35 U.S.C. §103(a) and requests reconsideration of this rejection.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1, 3-8, 10-14 and 16-28 is earnestly solicited.

¹⁹ In re Gartside, 203 F3d 1305, 53 USPQ2d 1769 (Fed. Cir. 2000) (holding that, consistent with the Administrative Procedure Act at 5 USC 706(e), the CAFC reviews the Board's decisions based on factfindings, such as 35 U.S.C. § 103(a) rejections, using the 'substantial evidence' standard because these decisions are confined to the factual record compiled by the Board.)


²⁰ In re Dembiczak, 175 F3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) ("We have noted that evidence of a suggestion, teaching, or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved, although 'the suggestion more often comes from the teachings of the pertinent references.' The range of sources available, however, does not diminish the requirement for actual evidence. That is, the showing must be clear and particular." (emphasis added).

²¹ See MPEP 2141, stating, as one of the tenets of patent law applying to 35 USC 103, that "[t]he references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention."

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicants' undersigned representative at the below listed telephone number.

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